

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently amended): ~~Thermal destruction process for at least one organic or halogenated organic product in liquid, gaseous or powder form, with the process involving the following steps:~~ A process of thermal destruction of a product which is an organic product or an halogenated organic product, the process comprising:

a) ~~[[ - ]]~~ mixing the product with water, thereby obtaining a mixture, wherein quantities of water being chosen such as to ensure:

~~- of the aforementioned one or more organic products with water in sufficient quantities to ensure~~ that at least stoichiometric ratios between atoms of carbon and oxygen atoms in the mixture are obtained when the product is an organic product,

or

~~- of the aforementioned one or more halogenated organic products with water in sufficient quantities to ensure~~ that at least the stoichiometric ratios for, ~~on the one hand,~~ atoms of carbon and oxygen atoms in the mixture are obtained[[ , ]] and that at least stoichiometric ratios on the other hand, for hydrogen and halogen atoms in the mixture are obtained when the product is a halogenated organic product,

b) ~~[[ - ]]~~ introduction introducing of this the mixture obtained in a) and of plasmagenic gases-into [[the]] a coil of an inductively coupled plasma torch together with plasmagenic gases, thereby producing to produce gases in which resulting from a decomposition of said mixture obtained in a) into atomic elements-has occurred,

c) ~~[[ - ]]~~ submitting the gases produced in b) to an initial a first thermal destruction operation of the aforementioned gas in which decomposition into atomic elements has

~~occurred, this initial~~ wherein the first destruction operation ~~taking~~ takes place in a reaction chamber,

d) ~~[[ - ]] submitting the gases produced in c) to~~ a second thermal destruction operation ~~of the gas that has undergone the initial destruction operation, [[this]]~~ wherein the second destruction operation ~~taking~~ takes place in a stirring device ~~[[with]]~~ in which no energy ~~being~~ is added, ~~this gas which undergoes the second thermal destruction operation being stirred and~~ in which stirring is performed with air ~~[[and/or]]~~ or oxygen,

e) ~~[[ - ]] recombination by cooling of at least a part of the gases~~ emerging from the stirring device, thereby obtaining a recombination of at least a part of said gases emerging from the stirring device, and

f) ~~[[ - ]] discharge~~ discharging of the gas that has been destroyed ~~the cooled gases~~ obtained in e).

Claim 2 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 1, ~~characterised in that~~ wherein the mixture of the at least one organic product or halogenated organic product with water obtained in a) is introduced at the coil of the inductive plasma torch (i) in the form of a spray, ~~[[if]]~~ when the ~~aforementioned organic product or halogenated organic product~~ contained in the mixture is in a liquid or powder form, or (ii) in a gaseous form, ~~[[if]]~~ when the ~~aforementioned organic or halogenated organic product~~ contained in the mixture is in a gaseous form.

Claim 3 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 1, ~~characterised in that~~ wherein the stirring device is a venturi.

Claim 4 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 1, characterised in that it further includes comprising, between e) and f), [[a]] cooling step for the gases emerging from the step of recombination by cooling obtained in e) in a device which allows a heat to be exchanged exchange with the surroundings.

Claim 5 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 1, characterised in that it further comprises comprising, between e) and f), an analysis [[step]] of the gases emerging from the step of recombination by cooling obtained in e).

Claim 6 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 4, characterised in that it further comprises comprising a regulation of a gas pressure regulation step.

Claim 7 (Currently amended): ~~Thermal destruction process as in the previous~~ The process of thermal destruction according to claim [[7]] 6, characterised in that wherein the regulation [[step]] is carried out using a pumping device which is referred to as the a vacuum plant.

Claim 8 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 1, characterised in that it comprises further comprising at least one chemical treatment step for of the gases emerging from the step of recombination by cooling obtained in e).

Claim 9 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 8, characterised in that wherein the at least one chemical treatment ~~step for gas is a step selected from amongst the group consisting of de-~~ halogenation, deoxidation of nitrogen oxide, and ~~desulphurisation~~ desulphurization.

Claim 10 (Currently amended): ~~Thermal destruction process as in~~ The process of thermal destruction according to claim 8, characterised in that further comprising a spray of spraying water on the gases obtained in e) ~~is carried out before carrying out the chemical treatment [[step]] of the aforementioned gases obtained in e) is carried out.~~

Claim 11 (Currently amended): ~~Thermal destruction device for one or more organic products or halogenated organic products in liquid, gaseous or powder form;~~ A device for thermal destruction of a product which is an organic product or an halogenated organic product, the device comprising:

- an inductively coupled plasma torch,
- means ~~[[of]]~~ for introducing plasmagenic gases into the aforementioned torch,
- means ~~[[of]]~~ for introducing a mixture of water and the ~~said one or more organic products~~ product or halogenated organic products into the aforementioned torch,
- a reaction chamber suitable for the thermal destruction of gases emerging from the ~~inductively coupled plasma torch,~~
- a device ~~used to carry~~ for carrying out the stirring of the gases emerging from the reaction chamber,
- means ~~[[of]]~~ for introducing air ~~[[and/or]]~~ or oxygen into the stirring device,
- a recombination by cooling device ~~that allows recombination by cooling of~~ for recombining at least a part of the gases emerging from the stirring device by cooling,

[[with]] wherein the inductively coupled torch ~~being~~ is connected to the reaction chamber, which is connected to the stirring device, which is, in turn, connected to the recombination by cooling device.

Claim 12 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]] according to claim 11, ~~characterised in that it comprises~~ further comprising cooling means for cooling the inductively coupled plasma torch, the reaction chamber, the stirring device and the recombination by cooling device.

Claim 13 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]] according to claim 12, ~~characterised in that~~ wherein the ~~aforementioned~~ cooling means ~~of~~ cooling is a cooling plant.

Claim 14 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]] according to claim 11, ~~characterised in that~~ wherein the reaction chamber comprises a double wall in which cooling water circulates.

Claim 15 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]] according to claim 14, ~~characterised in that~~ wherein the internal surface of the double wall is covered with a refractory material.

Claim 16 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]] according to claim 11, ~~characterised in that~~ wherein the introduction of a plasmagenic gas into the torch is achieved using ~~over-pressurisation~~ over-pressurization.

Claim 17 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 11, ~~characterised in that~~ wherein the means for introducing a mixture of  
water and waste the product into the torch is a spray probe [[if]] when the mixture is in the  
~~form of a liquid or suspension form~~, or is an injection probe [[if]] when the mixture is in a  
gaseous form.

Claim 18 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 11, ~~characterised in that~~ wherein the stirring device ~~used to achieve~~ for  
stirring [[of]] gases is a venturi.

Claim 19 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 18, ~~characterised in that~~ wherein the venturi has a water-cooled double  
wall.

Claim 20 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 18, ~~characterised in that~~ wherein the venturi includes an upper part, ~~called~~  
the which is a convergent, a lower part, ~~called the~~ which is a divergent, and a central part,  
~~known as the~~ which is a neck, which connects the convergent and the divergent, and air inlet  
ports.

Claim 21 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 20, ~~characterised in that~~ wherein the venturi ~~includes~~ comprises at least  
one distributing means for uniformly distributing air onto the venturi walls.



Claim 22 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 21, ~~characterised in that~~ wherein the at least one distributing means for  
uniformly distributing air onto the venturi walls is a distribution chamber which includes  
holes arranged around its perimeter.

Claim 23 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 11, ~~characterised in that~~ wherein the recombination by cooling device  
used for recombination by cooling of at least a part of the gases emerging from the stirring  
device is a water-cooled double walled enclosure.

Claim 24 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 11, ~~characterised in that it further includes~~ comprising at least a device  
selected from the group consisting of a device for exchanging heat with the surroundings  
[[and/or]] and a device for regulating the pressure inside the destruction device.

Claim 25 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 24, ~~characterised in that~~ wherein the device used to regulate the pressure is  
a vacuum plant.

Claim 26 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 11, ~~characterised in that it further includes~~ comprising at least one device  
for chemically treating the gases emerging from the recombination device, [[this]] wherein  
the at least one device ~~being~~ for chemically treating the gases is located after the gas  
recombination device.

Claim 27 (Currently amended): ~~Thermal~~ The thermal destruction device [[as in]]  
according to claim 26, ~~characterised in that~~ wherein the at least one device for chemically  
treating the gases emerging from the recombination device carries out a reaction selected  
from the group consisting of de-halogenation, deoxidation of nitrogen oxide, and  
~~desulphurisation~~ desulphurization.